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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/811,803	03/19/2001	Mike Warner	TESSERA 3.0-255	9626

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EXAMINER

TOLEDO, FERNANDO L

ART UNIT PAPER NUMBER

2823

DATE MAILED: 07/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/811,803

Applicant(s)

WARNER ET AL.

Examiner

Fernando Toledo

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 17-20 and 23-38 is/are rejected.
- 7) ☒ Claim(s) 7-16, 21 and 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 – 6, 17 – 20 and 23 – 38 are rejected under 35 U.S.C. 102(b) as being anticipated by DiStefano et al. (U. S. patent 5,518,964).

In re claim 1, DiStefano in the U. S. patent 5,518,964; figures 1 – 30 and related text, discloses a) providing a first side assembly having a top surface and an oppositely facing bottom surface, and a second side assembly having a first surface so that the bottom surface of the first side assembly is juxtaposed with the first surface of the second side assembly; b) providing leads extending between the first side assembly and the second side assembly and a first resilient element disposed between the first side assembly and the second side assembly (Figure 29); c) applying a compressive force to the juxtaposed assemblies so as to compress the first resilient element; and d) at least partially releasing the compressive force so as to allow the first resilient element to expand, thereby moving one or both of the first side assembly and the second side assembly to deform the leads (Figures 13 – 16).

3. In re claim 2, DiStefano discloses wherein the step of providing a first side assembly includes providing a microelectronic element 686.

4. In re claim 3, DiStefano discloses wherein the step of providing a first resilient element includes attaching the first resilient element to the first side assembly (Figure 29).
5. In re claim 4, DiStefano discloses wherein the step of providing leads includes providing leads extending between the microelectronic element and the second side assembly (Figure 29).
6. In re claim 5, DiStefano discloses wherein the leads have a first end and a second end, the microelectronic element includes contacts, and the method further includes bonding the first end of one of the leads to each of the contacts, wherein the second ends of each of the leads is attached to the second side assembly (Figure 29).
7. In re claim 6, DiStefano discloses wherein the step of providing a first side assembly includes providing a frame having an aperture for receiving a microelectronic element and the step of providing a first side assembly includes inserting the microelectronic element into the aperture (Figure 30).
8. In re claim 17, DiStefano discloses wherein the first side assembly includes a flexible dielectric layer (Figure 19).
9. In re claim 18, DiStefano discloses wherein the step of providing leads includes providing leads having a first end permanently attached to the second side assembly and a second end releasably attached to the second side assembly (figure 9).
10. In re claim 19, DiStefano discloses wherein during the step of at least partially releasing, the second ends of the leads are peeled from the first surface of the first element (Figure 9).
11. In re claim 20, DiStefano discloses wherein the step of providing leads includes providing leads on the microelectronic element and bonding the leads to the second side assembly (Figure 19).

12. In re claim 25, DiStefano discloses further including providing a second resilient element on a surface of the structure facing the microelectronic element (Figure 19).

13. In re claim 26, DiStefano discloses further including providing adhesive on the structure, on a surface of the structure, which faces the microelectronic element (Figure 29).

14. In re claim 27, DiStefano discloses wherein the adhesive is a curable adhesive and further including curing the adhesive during the step of applying a compressive force (Figure 29).

15. In re claim 28, DiStefano discloses further including juxtaposing a coverlay over the structure and attaching the coverlay to the first side assembly (Figure 30).

16. In re claim 29, DiStefano discloses further including encapsulating the deformed leads by disposing a curable composition around the leads and curing the curable composition (Figure 21).

17. In re claim 30, DiStefano discloses wherein the cured composition is compliant (column 17).

18. In re claim 31, DiStefano discloses wherein the first side assembly includes several microelectronic elements, the second side assembly includes a dielectric layer and the method further includes after the step of introducing an encapsulant cutting through the dielectric layer around the microelectronic elements (Figure 30).

19. In re claim 32, DiStefano discloses wherein the first side assembly includes a wafer having several of microelectronic elements (Figure 8).

20. In re claim 33, DiStefano discloses wherein the step of applying a compressive force includes applying an elevated pressure to at least one surface of the first side assembly, which faces away from the second side assembly (Figure 14).

21. In re claim 34, DiStefano discloses wherein the step of applying a compressive force includes applying a vacuum to at least on surface of the first side assembly, which faces away from the second side assembly (Figure 15).

22. In re claim 35, DiStefano discloses wherein the leads are included of a metal selected from the group consisting of copper, gold, gold alloys and copper alloys (column 9).

23. In re claim 36, DiStefano discloses further including the step of attaching solder balls to the second side assembly, wherein each of the solder balls is electrically interconnected to one of the second ends of one of the leads (Figure 17).

24. In re claim 37, DiStefano discloses wherein the first side assembly further includes a conductive plane disposed on a bottom surface thereof (Figure 16).

25. In re claim 38, DiStefano discloses a microelectronic package made according to claim 1 (Figure 16).

Response to Arguments

26. Applicant contests that DiStefano does not disclose the first resilient element prior to applying a compressive force to the juxtaposed assemblies.

Examiner respectfully submits that on figure 29, as stated on the rejection above, shows a resilient component 693 being disposed between the juxtaposed assemblies prior to applying a compressive force (Column 20, Lines 38 – 41).

27. Applicant's arguments filed 8 May 2003 have been fully considered but they are not persuasive for the reasons above.

Allowable Subject Matter

28. Claims 7 – 16, 21 and 22 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

29. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fernando Toledo whose telephone number is 703-305-0567. The examiner can normally be reached on Mon-Fri 8am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Olik Chaudhuri can be reached on 703-306-2794. The fax phone numbers for the

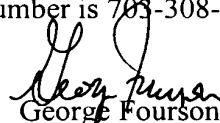
Application/Control Number: 09/811,803

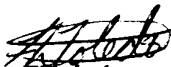
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organization where this application or proceeding is assigned are 703-308-7382 for regular communications and 703-308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.


George Fourson
Primary Examiner
Art Unit 2823


F Toledo
July 17, 2003